



Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137



Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-1369-20-F

Plant ID: 1369

Effective Date: 03/31/2020

Expiration Date: 03/31/2025

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Source: IMI South, LLC – Middletown
12901 Avoca Road
Louisville, KY 40223

Owner: IMI South, LLC
1440 Selinda Avenue
Louisville, KY 40213

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve months and no later than ninety days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant: PM₁₀
Tons/year: 25

Application No.:
Public Notice Date:

See **Application and Related Documents** table.
02/28/2020

Permit writer: Aaron DeWitt

A handwritten signature in blue ink, appearing to read "Matt K.", is positioned above the title of the Air Pollution Control Officer.

Air Pollution Control Officer
3/31/2020

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Permit Revisions and Changes

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
146-00-O	N/A	04/30/2001	Initial	Initial Permit Issuance
330-03-O	N/A	04/30/2003	Initial	Initial Permit Issuance
O-1369-14-F	01/16/2015	02/17/2015	Initial	Initial Permit Issuance
O-1369-20-F	02/28/2020	03/31/2020	Renewal	Renewal, update format, removed greenhouse gas limits from general condition 10

Construction Permit Summary

Permit No.	Issue Date	Description
146-00-C	4/7/2000	Construction of concrete batch plant

Application and Related Documents

Document Number	Date	Description
119586	09/30/2019	District email reminder of expiring permits, 60 days until applications due
126074	12/10/2019	District email requesting overdue application for permit renewal
126248	12/12/2019	IMI Middletown submitted applications
126249	12/12/2019	IMI Middletown recalled previously submitted application. Emission points not complete. To submit corrected version later.
126254	12/13/2019	District response to submitted and recalled version of application
126247	12/13/2019	IMI Middletown submitted applications

Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors, published by U.S.EPA</i>
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
(M)SDS	- (Material) Safety Data Sheet
NAICS	- North American Industry Classification System
NO _x	- Nitrogen oxides
PM	- Particulate Matter
PM ₁₀	- Particulate Matter less than 10 microns
PM _{2.5}	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO ₂	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

- G1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.
- G2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.
- G3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.
- G4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.
- G5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.
- G6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.

- G7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.
- G8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.
- G9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.
- G10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM₁₀, PM_{2.5}, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; or any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.
- G11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G12. Unless specified elsewhere in this permit, the owner or operator shall submit semi-annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All compliance reports shall include the following per Regulation 2.17, section 3.5.
- A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
 - The signature and title of a responsible official of the company.
 - The semi-annual compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

G13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
1.18	Rule Effectiveness
1.19	Administrative Hearings
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.06	Permit Requirements – Other Sources
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
3.01	Ambient Air Quality Standards
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.04	Particulate and Sulfur Dioxide Reduction Requirements
4.05	Hydrocarbon and Nitrogen Oxides Reduction Requirements
4.06	Carbon Monoxide Reduction Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

- G14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
2.17	Federally Enforceable District Origin Operating Permits
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

- G15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.
- G16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.
- G17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

***Air Pollution Control District
701 W. Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137***

Emission Unit U1: Ready Mix Concrete Batch Plant**Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
1.14	Control of Fugitive Particulate Emissions	All
2.17	Federally Enforceable District Origin Operating Permit	All
7.08	Standards of Performance for New Process Operations	1, 2, and 3

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
5.00	Definitions	1, 2

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E1	Aggregate/sand conveyor loading hoppers four (4) combined, capacity 330 ton/hr	2000	1.14, 7.08	N/A	N/A
E2	Aggregate/sand bins loading conveyor, capacity 420 ton/hr	2000		N/A	N/A
E3	Aggregate storage, capacity 420 ton/hr	2000		N/A	N/A
E4	Cement silo #1, capacity 90 ton	2000	7.08	C1	S1
E5	Flyash silo #1, capacity 90 ton	2000		C1	S1
E6	Cement silo #2, capacity 76 ton	2000		C1	S1
E7	Slag silo #1, capacity 46 ton	2000		C1	S1
E8	Flyash storage, capacity 280 ton ¹	2000		C1	S1
E9	Aggregate weigh batcher, capacity 360 ton/hr	2000	1.14, 7.08	N/A	N/A
E10	Cement weigh batcher, capacity 50 ton/hr	2000	7.08	C1	S1

¹ FEDOOP application listed the 280-ton flyash silo as not in use.

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E11	Erie-Strayer central mix (wet) batch plant, capacity 200 yd ³ /hr	2000	7.08	C1	S1
E12	Stephens transit/mixer truck (dry) batch plant, capacity 120 yd ³ /hr	2000		C1	S1
E13	Aggregate/sand transfer conveyor, capacity 360 ton/hr	2000	1.14, 7.08	N/A	N/A

Control Devices

Control ID	Description	Control Efficiency
C1	Central Dust Collection System, make Stephens, model SOS8000 baghouse, capacity 15,000 cfm	98%

U1 Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. Opacity

- i. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. [Regulation 7.08, section 3.1.1]

b. PM/PM₁₀

- i. The owner or operator shall not allow the total plantwide emissions of the pollutant PM₁₀ to equal or exceed twenty-five (25.0) tons per twelve (12) consecutive month period.² [Regulation 2.17, section 5.1]
[Regulation 5.00, section 1.13.5]
- ii. The owner or operator shall not allow the total plantwide emissions of the pollutant PM to equal or exceed twenty-five (25.0) tons per twelve (12) consecutive month period. [Regulation 5.00, section 1.13.5]
- iii. The owner or operator shall not allow or cause the particulate emissions to exceed the permitted limitations of twenty (20) tons per year for the concrete batch plant emission points E1 through E13 combined.
[Construction Permit 146-00-C, effective 4/7/2000]
- iv. The owner or operator shall not allow any materials to be handled, transported or stored; or access roads to and from the plant site, roads on the plant site property and the on-site work areas of the plant site, to be used without taking reasonable precautions to prevent particulate matter from becoming airborne beyond the work site, per Off-Permit Document, Fugitive Dust control plan. [Regulation 1.14, section 2.1]
- v. The owner or operator shall not allow PM emissions of the aggregate/sand bin loading conveyor fill hopper, emission point E1, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.³
[Construction permit 146-00-C, effective 4/7/2000]
- vi. The owner or operator shall not allow PM emissions of the aggregate/sand bin loading conveyor, emission point E2, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.³
[Construction permit 146-00-C, effective 4/7/2000]

² The source requested the total plantwide limits of the criteria pollutants PM₁₀ < 25 ton/yr, Total HAPs < 12.5 ton/yr and largest single HAP < 5.0 ton/yr to be a FEDOOP STAR Exempt source as defined by Regulation 5.00, section 1.13.5, on 11/13/14.

³ Emissions calculations used emission factors from AP-42, table 11.12-2 and table 11.12-8. Uncontrolled emissions for the pollutant PM do not exceed the standard.

- vii. The owner or operator shall not allow PM emissions of the aggregate storage, emission point E3, to exceed 2.34 lb/hr, based on actual operation hours on a calendar day.³
[Construction permit 146-00-C, effective 4/7/2000]
- viii. The owner or operator shall not allow PM emissions from each of the process cement silos, emission points E4 and E6, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.⁴
[Construction permit 146-00-C, effective 4/7/2000]
- ix. The owner or operator shall not allow PM emissions from each cement supplement silos, emission points E5, E7 and E8, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.⁴
[Construction permit 146-00-C, effective 4/7/2000]
- x. The owner or operator shall not allow PM emissions of the aggregate/sand weigh hopper, emission point E9, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.³
[Construction permit 146-00-C, effective 4/7/2000]
- xi. The owner or operator shall not allow PM emissions of the cement/cement supplement weigh hopper, emission point E10, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.⁴
[Construction permit 146-00-C, effective 4/7/2000]
- xii. The owner or operator not allow PM emissions from the central mixer loading, emission point E11, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.⁴
[Construction permit 146-00-C, effective 4/7/2000]
- xiii. The owner or operator not allow PM emissions from the mix/transit truck loading, emission point E12, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.⁴
[Construction permit 146-00-C, effective 4/7/2000]
- xiv. The owner or operator shall not allow PM emissions of the aggregate/sand transfer conveyor, emission point E13, to exceed 2.34 lb/hr, based on actual operating hours on a calendar day.⁵
[Construction permit 146-00-C, effective 4/7/2000]
- xv. For emission points E4, E5, E6, E7, E8, E10, E11, and E12: At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner

⁴ Uncontrolled emissions of the pollutant PM can exceed the PM lb/hr standard of construction permit 146-00-C.

⁵ Emission calculations used emission factors from AP-42, table 11.12-2 and table 11.12-8. Uncontrolled emissions for the pollutant PM do not exceed the standard.

consistent with good air pollution control practice for minimizing emissions. [Regulation 1.05, section 5]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

- i. The owner or operator shall, monthly, conduct a one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys may be performed on the building exhaust points if the process is inside an enclosure.
- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
- iii. The owner or operator shall, monthly, maintain records of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

b. PM/PM₁₀

- i. The owner or operator shall, daily, maintain records of any periods of time where the process, emission points E4, E5, E6, E7, E8, E10, E11, and E12, were operating and the control device was not operating or a declaration that the control device operated at all times that day when the process was operating.
- ii. If there is any time that the control device is bypassed or not in operation when the process, emission points E4, E5, E6, E7, E8, E10, E11, and E12, is operating, then the owner or operator shall keep a record of the following for each bypass event:
 - (1) Date;
 - (2) Start time and stop time;
 - (3) Identification of the control device and process equipment;

- (4) PM emissions during the bypass in lb/hr;
 - (5) Summary of the cause or reason for each bypass event;
 - (6) Corrective action taken to minimize the extent or duration of the bypass event; and
 - (7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.
- iii. The owner or operator shall, monthly, perform a visual inspection of the structural and mechanical integrity of the dust collector for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall, monthly, maintain records of the results.
- iv. The owner or operator shall, monthly, maintain records of the below listed items:
- (1) The monthly and the monthly twelve (12) consecutive month period totals of cubic yards of concrete produced.
 - (2) The owner or operator shall calculate and record, during the first thirty calendar days of the following month, the monthly twelve (12) consecutive month plantwide total emissions of the pollutant PM and PM₁₀. All totals shall include PM and PM₁₀ emitted during control bypasses.
 - (3) The owner or operator shall use the below listed, AP-42, Concrete Batching, emission factors when calculating the controlled plantwide emissions for the pollutant PM₁₀, or other emission factors that become available, as approved by District.⁶

Table 1 AP-42 Controlled Emission Factors

Equipment	AP-42 Emission Factor, Controlled (lb PM₁₀/ton)	Controlled PM₁₀ Emission Factor converted to lb PM₁₀/yd³ dry concrete
Aggregate Transfer	0.0033	0.0031
Sand Transfer	0.00099	0.0007
Weigh hopper (Agg+Sand) ^a	0.00014	0.00023
Mixer loading (cem+cem suppl) ^b	0.0055	0.0016
Mix/transit truck loading (cem+cem suppl) ^b	0.0263	0.0074
Cement silo filling	0.00034	0.00008
Cement supplement silo filling	0.0049	0.0002
Aggregate ground storage	N/A	0.0031

⁶ The PM/PM₁₀ emissions factors are from or were derived from AP-42, Chapter 11.12, Concrete Batching, tables 11.12-2 and 11.12-8, and the standard concrete mix proportions listed in AP-42, chapter 11.12.

Equipment	AP-42 Emission Factor, Controlled (lb PM₁₀/ton)	Controlled PM₁₀ Emission Factor converted to lb PM₁₀/yd³ dry concrete
Sand ground storage	N/A	0.0007
Aggregate hopper loading	N/A	0.0031
Sand hopper loading	N/A	0.0007

- (4) The owner or operator shall use the below listed AP-42, Concrete Batching, emission factors when calculating the uncontrolled plantwide emissions for the pollutant PM₁₀, or other emission factors that become available, as approved by District.⁷

Table 2 AP-42 Uncontrolled Emission Factors

Equipment	AP-42 Emission Factor, Uncontrolled (lb PM₁₀/ton)	Uncontrolled PM₁₀ Emission Factor converted to lb PM₁₀/yd³ dry concrete
Aggregate Transfer	0.0033	0.0031
Sand Transfer	0.00099	0.0007
Weigh hopper (Agg+Sand) ^a	0.0028	0.0046
Mixer loading (cem+cem suppl) ^b	0.156	0.044
Mix/transit truck loading (cem+cem supply) ^b	0.310	0.0874
Cement silo filling	0.47	0.1152
Cement supplement silo filling	1.10	0.0402
Aggregate ground storage	N/A	0.0031
Sand ground storage	N/A	0.0007
Aggregate hopper loading	N/A	0.0031
Sand hopper loading	N/A	0.0007

^a The unit for weigh hopper emission factor is lb of pollutant per ton of aggregate and sand, AP-42, table 11.12-2, footnote e.

^b The unit for central mixer loading emission factor is lb of pollutant per ton of cement and flyash, AP-42, table 11.12-2, footnote f.

⁷ The PM/PM₁₀ emissions factors are from or were derived from AP-42, Chapter 11.12, Concrete Batching, tables 11.12-2 and 11.12-8, and the standard concrete mix proportions listed in AP-42, chapter 11.12.

- (5) The owner or operator shall use the below listed, AP-42, Concrete Batching, emission factors when calculating the controlled plantwide emissions for the pollutant PM, or other emission factors that become available, as approved by District.⁸

Table 3 AP-42 Controlled Emission Factors

Equipment	AP-42 Emission Factor, Controlled lb PM/ton	Controlled PM Emission Factor converted to lb PM/yd³ dry concrete
Aggregate Transfer	0.0069	0.0063
Sand Transfer	0.00021	0.0015
Weigh hopper (Agg+Sand) ^a	0.00024	0.0004
Mixer loading (cem+cem suppl) ^b	0.0184	0.0052
Mix/transit truck loading (cem+cem supply) ^b	0.098	0.0276
Cement silo filling	0.00099	0.00024
Cement supplement silo filling	0.0089	0.0003
Aggregate ground storage	N/A	0.0064
Sand ground storage	N/A	0.0015
Aggregate hopper loading	N/A	0.0064
Sand hopper loading	N/A	0.0015

- (6) The owner or operator shall use the below listed AP-42, Concrete Batching, emission factors when calculating the uncontrolled plantwide emissions for the pollutant PM, or other emission factors that become available, as approved by District.⁶

Table 4 AP-42 Uncontrolled Emission Factors

Equipment	AP-42 Emission Factor, Uncontrolled lb PM/ton	Uncontrolled PM Emission Factor converted to lb PM/yd³ dry concrete
Aggregate Transfer	0.0069	0.0063
Sand Transfer	0.00021	0.0015
Weigh hopper (Agg+Sand) ^a	0.0048	0.0079
Mixer loading (cement+flyash) ^b	0.572	0.161
Mix/transit truck loading (cem+cem suppl) ^b	1.118	0.315
Cement silo filling	0.73	0.179
Cement supplement silo filling	3.14	0.116
Aggregate ground storage	N/A	0.0064
Sand ground storage	N/A	0.0015
Aggregate hopper loading	N/A	0.0064
Sand hopper loading	N/A	0.0015

⁸ The PM/PM₁₀ emissions factors are from or were derived from AP-42, Chapter 11.12, Concrete Batching, tables 11.12-2 and 11.12-8, and the standard concrete mix proportions listed in AP-42, chapter 11.12.

^a The unit for weigh hopper emission factor is lb of pollutant per ton of aggregate and sand, AP-42, table 11.12-2, footnote e.

^b The unit for central mixer loading emission factor is lb of pollutant per ton of cement and flyash, AP-42, table 11.12-2, footnote f.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. Opacity

- i. The date, time, and results of each visible emissions survey conducted that resulted in visible emissions being observed. If no visible emissions were observed during the reporting period, the owner or operator may submit a negative declaration.
- ii. The date, time and results of each Method 9 test conducted. If there were no Method 9 tests performed during the reporting, the owner or operator may submit a negative declaration.
- iii. Description of any corrective action taken for each exceedance of the opacity standard.

b. PM/PM₁₀

- i. The owner or operator shall report the monthly twelve (12) consecutive month period totals of plantwide emissions of the pollutant PM₁₀. All totals shall include PM₁₀ emitted during control bypasses.
- ii. The owner or operator shall report the monthly twelve (12) consecutive month period total of plantwide emissions of the pollutant PM. All totals shall include PM emitted during control bypasses.
- iii. The owner or operator shall report the following information regarding each emission points, E4, E5, E6, E7, E8, E10, E11, and E12: PM bypass Activity in the annual compliance reports:
 - (1) Emission point at which the bypass occurred;
 - (2) Date and duration (including the start and stop time) during which a bypass occurred;
 - (3) The average PM lb/hr emitted at each emission point during the bypass;
 - (4) Summary information on the cause or reason for the bypass activity;
 - (5) Corrective action taken to minimize the extent and duration of each bypass event;

- (6) Measures implemented to prevent reoccurrence of the situation that resulted in bypass emissions; or
- (7) If no deviations occur during the annual reporting period, the report shall contain a negative declaration.

Off-Permit Documents

Irving Materials, Inc. (IMI) has prepared a Fugitive Dust Control Plan that was incorporated in the previous FEDOOP operating permit, O-1369-14-F. This document is no longer included as a permit appendix and is now maintained separately.

Insignificant Activities

Equipment	Qty.	PTE (ton/yr)	Regulation Basis
2.5 MMBtu/hr natural gas fuel hot water heater, Raypack, model H3-2500 (See Unit IA2 – Indirect-fired Heat Boiler)	1	1.07 NOX	Regulation 1.02, Appendix A
Tanks for storage of lubricating oils or fuels oils, with vapor pressure less than 10 mmHg at conditions of 20 °C and 760 mmHg. (See unit IA1 – Tanks)	5	0.01 VOC	Regulation 1.02, Appendix A

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
2. Insignificant activities identified in District Regulation 1.02, Appendix A, shall comply with generally applicable requirements.
3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
6. The District has determined that no monitoring, recordkeeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

Emission Unit IA1: Tanks**Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
T1	8,000-gallon tank, used for diesel fuel	2000	7.12	N/A	N/A

Control Devices

There are no control devices associated with this equipment.

Equipment Not Regulated

Emission Point	Description
IA Tanks	Four (4) VOC storage tanks, each with a maximum capacity of 250 gallons or less, for storing engine oil, gear oil, hydraulic oil, and transmission fluid

IA1 Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. VOC

- i. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessel(s), unless the storage tank is equipped with a permanent submerged fill pipe. [Regulation 7.12, section 3.3]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

- i. The owner or operator of the storage vessel(s) shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessel(s) are changed a record shall be made of the new contents, the date of the change, and the new vapor pressure in order to demonstrate compliance with VOC standards.
- ii. The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report in accordance with General Condition G12.

Emission Unit IA2: Indirect-fired Heat Boiler**Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
7.06	Standards of Performance for New Indirect Heat Exchangers	1 through 5

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E16	Indirect heat natural gas boiler, make Raypack, model H3-2500, capacity 2.499 MMBtu/hr	2000	7.06	N/A	N/A

Control Devices

There are not control devices associated with this equipment.

IA2 Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility particulate matter emissions which exhibit greater than 20% opacity. [Regulation 7.06, section 4.2]

b. PM

- i. The owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.56 pounds per million BTU total heat input.⁹ [Regulation 7.06, section 4.1.1]

c. SO₂

- i. The owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 1.0 pounds per million BTU actual total heat input for combustion of liquid and gaseous fuels.⁹ [Regulation 7.06, section 5.1.1]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

- i. There are no monitoring or record keeping requirements for Opacity compliance.¹⁰

b. PM

- i. There are no monitoring or record keeping requirements for PM compliance.⁹

⁹ A one-time PM and SO₂ compliance demonstration has been performed using AP-42 emission factors. The emission standards cannot be exceeded when combusting natural gas.

¹⁰ The District has determined that using a natural gas fired boiler should inherently meet the 20% opacity standard.

c. SO₂

- i. There are no monitoring or record keeping requirements for SO₂ compliance.⁹

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report in accordance with General Condition G12.

Attachment A - Protocol Checklist for a Performance Test

A complete protocol must include the following information

1. Facility name, location, and Plant ID number.
2. Responsible Official and environmental contact names.
3. Permit numbers that are requiring the test to be conducted.
4. Test methods to be used (*i.e.* EPA Method 1, 2, 3, 4, and 5).
5. Alternative test methods or description of modifications to the test methods to be used.
6. Purpose of the test including equipment and pollutant to be tested. (The purpose may be described in the permit that requires the test to be conducted or it may be to show compliance with a federal regulation or emission standard.)
7. Tentative test dates. (These may change but final notice is required at least 10 days in advance of the actual test dates in order to arrange for observation.)
8. Maximum rated production capacity of the system.
9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits) and justification of the planned production rate, if less than the maximum rate.
10. Method to be used for determining rate of production during the performance test.
11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance.
12. Description of normal operation cycles, if applicable.
13. Discussion of operating conditions that tend to cause worse case emissions. This is especially important to clarify if worst case emissions do not result from the maximum production rate.
14. Process flow diagram.
15. The type and manufacturer of the control equipment, if any.
16. The process and/or control equipment parameters to be monitored and recorded during the performance test. These parameters may include pressure drops, flow rates, pH, temperature, *etc.* The values achieved during the test may be required during subsequent operations to describe the operating parameters that are indicative of good operating performance.
17. How quality assurance and accuracy of the data will be maintained, including sample identification and chain-of-custody procedures, audit sample provider, and number of audit samples to be used, if applicable.
18. Diameter of the pipe, duct, stack, or flue to be tested.
19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet.
20. The number of traverse points to be tested for the outlet and the inlet if required, using Method 1 in Appendix A-1 to 40 CFR Part 60.

The Stack Test Review fee must be submitted with each stack test protocol.

The current fee is listed on the APCD website (louisvilleky.gov/APCD)

Fee Comment

1. The company is required to pay annual fees.